

REFERENCES

- DEORAS, P. J. (1963): Studies on Bombay yield records and their probable significance, chapter in "Venomous and Poisonous Animals and Noxious plants of Pacific Region". Pergamon Press. Oxford. p. 337.
- _____ (1966): Probable significance of venom yield record studies. *Proc. Inter Symp. Ven. Animals Nem. Institute, Butantan* 33:767.
- KARLSSON, E. & EAKER, D. (1971): Isolation of the Principal neurotoxins of *Naja naja* subspecies from the Asian Mainland. *Toxicon* 10:217.

14. ON *PSILOCEPHALUS BARBATUS* (GRAY),
AN INTERESTING BALISTOID FISH TRAWLED OFF
GANJAM COAST, ORISSA

(With a text-figure)

Recently Shri S. K. Mohanty, Superintendent of Fisheries, Biological Research Station, Balugaon, Orissa, sent the senior author a specimen of *Psilocephalus barbatus* (Gray), trawled on 25.i.73, at 15 fathoms depth off Rushikulya river mouth, Ganjam Coast, Orissa. A search of the Zoological Survey of India fish reserve collections reveals that the fish is represented by a single specimen collected by F. Day from Madras coast. Day's (1878 : 694) description and figure of the species were based on this specimen. Regarding the habitat of the fish he stated that the fish occurs in the "Seas of India to the Malaya Archipelago. Is very common at Madras, especially the young. It attains at least 10 inches in length." There is, however, no record of this fish from the Indian seas subsequent to that of Day and the present record of it from Orissa coast is, therefore, of special significance.

We know next to nothing of the biology of *Psilocephalus barbatus* even though it is found in shallow waters and the young according to Day (op. cit.) is in abundance along the Madras coast. The presence of a long fleshy barbel below the symphysis of the lower jaw strongly indicates that the fish is bottom dwelling, but it will be interesting to investigate, with its elongated snout and upturned mouth with small incisiform teeth in the jaws, how the fish makes a living. The gut content examined in the specimen available to us is found to mainly consist of a mush of Polychaete worms.

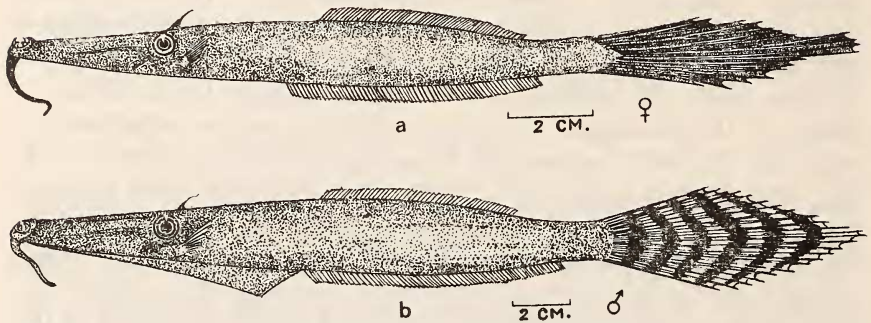
P. barbatus is the only representative of the family Psilocephalidae of the superfamily Balistoidea of the suborder Balistoidei. There are two suborders of the order Tetraodontiformes (Plectognathi) namely, Balistoidei (Sclerodermi) with three superfamilies (Triacanthoidea, Balistoidea and Ostraciontoidea), and Tetraodontoidei with four superfamilies (Triodontoidea, Tetraodontoidea, Diodontoidea and Moloidea). The superfamily Balistoidea composed of the filefishes, triggerfishes

and the leatherjackets, embraces four families namely, Balistidae, Monacanthidae, Aluteridae and Psilocephalidae.

A detailed description illustrated with a drawing made from the present specimen (Zoological Survey of India, Regd. No. F 68912; female) measuring 198 mm in T.L., is given below.

Psilocephalus barbatus (Gray)

1831. *Anacanthus barbatus* Gray, *Zool. Miscell.*, p. 8. (type loc: Singapore).
 1865. *Psilocephalus barbatus* Bleeker, *Atlas Ichth.*, Vol. 5, pp. 5 & 143, pl. 226, fig. 1.
 1878. *Anacanthus barbatus* Day, *Fish. India*, pt. 4, p. 694, pl. 179, fig. 1.
 1889. *Anacanthus barbatus* Day, *Fauna Brit. India*, Fishes, Vol. 2, p. 483, fig. 173.
 1955. *Anacanthus barbatus* Munro, *Mar. Freshw. Fish. Ceylon*, p. 276.
 1962. *Anacanthus barbatus* Beaufort & Briggs, *Fish. Indo-Austr. Arch.*, Vol. 11, pp. 344, 345.



Psilocephalus barbatus (Gray). a. Female; b. Male after Bleeker 1865.

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Body elongate and strongly compressed; depth 9.3 times, head 3.5 in standard length; snout elongated 1.2 times, diameter of eye 7.0 in head length. Mouth upturned, small and curved, incisiform teeth in two rows in upper jaw and one row in lower jaw. A fleshy barbel below the symphysis of the lower jaw, which is thick at the base and gradually tapering into a thread, 2.0 times in head length. Gill opening about as long as eye. Origin of pectorals slightly behind the posterior edge of the eye. The first dorsal fin in the form of a single flexible spine situated over the hind border of the eye, the length of the second dorsal fin base 3.0 times, and anal fin base 2.4 in standard length; pelvic absent; caudal fin wedge-shaped, it is longer than head, 2.5 times in standard length. Length of the caudal peduncle 7.3 times in standard length, its depth 2.5 times in its length. Distance between the anterior tip of snout and origin of first dorsal fin 3.8 times, that between the anterior tip of snout and origin of second dorsal fin 2.0 and

that between the anterior tip of snout and origin of anal fin 2.2 in standard length.

Colour in preserved specimen is uniformly dull brown on body with the caudal black, dorsal, anal and pectoral whitish. The six vertical dark caudal bands seen in the male (*vide* Bleeker's figure) are absent in our specimen and probably well marked only in the male.

A skinny prolongation on the throat extending as far as the anal base (*vide* Bleeker's figure) is a secondary sexual character of the male.

Distribution. From east coast of India through Indo-Australian archipelago to Philippines and to Queensland and West Australia.

ZOOLOGICAL SURVEY OF INDIA,
CALCUTTA,
June 20, 1973.

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REFERENCES

- BLEEKER, P. (1865): Atlas Ichthyol. Indes. Orient. Nepal. 5, pp. 1-152, pls. 1-231.
DAY, F. (1878): Fishes of India, pt. 4, pp. 553-778, pls. 134-195, London.

15. ON THE OCCURRENCE AND BREEDING OF *LABEO ROHITA* (HAMILTON) IN A SECTION OF NARBADA RIVER IN GUJARAT STATE

Labeo rohita (Hamilton) is widely cultured all over India and is the most esteemed fish in Bengal and Orissa. The natural distribution of this fish, as recorded by Day (1878), is from Sind and the Punjab along upper India and Assam as far as Burma, though it is now known to occur in Peninsular India in the Hirakud stretch of the Mahanadi Job *et al.* 1955), the Godavari river system (Alikunhi & Chaudhuri 1951) and the lower reaches of Godavari and Krishna rivers (David 1963). Of the two important westerly flowing rivers of Peninsular India, this fish is not known to occur in Narbada (Anon. 1956; Hora & Nair 1941; and Rajan & Kaushik 1958), though recently this fish has been recorded from Tapti, where it was accidently transplanted (Karamchandani & Pisolkar 1967). The nonavailability of this species in Narbada was also indicated by the enquiries made from fishermen during fishery survey of 1958-59 and the observations on the capture fishery of the entire stretch of the river in Madhya Pradesh and Gujarat State (1958-1966).

While exploring new fish seed resources in the lower stretches of